

NIST Center for Neutron Research (NCNR)

Live Report

22-Feb-2004 8:41:33 AM

There are a total of **166** responses FROM 12-Feb-2004 to 21-Feb-2004.

1. Your position

	Percent	Count	Answers
	14.4%	23/160	Graduate Student
	16.9%	27/160	Post-doc
	40.6%	65/160	Professor
	23.1%	37/160	Staff Scientist
	5.0%	8/160	Other
100.0% 160/160 Summary			

2. Your primary instrument (Please use this instrument as the basis for answers to sections 3 and 4)

	Percent	Count	Answers
	24.7%	39/158	30m SANS, NG3
	19.6%	31/158	30m SANS, NG7
	3.8%	6/158	8m SANS, NG1
	7.0%	11/158	Reflectometer, horizontal sample geometry, NG7
	3.2%	5/158	Reflectometer, polarized beam option, vertical geometry, NG1
	8.2%	13/158	Disk Chopper Spectrometer, NG4
	1.9%	3/158	Backscattering Spectrometer, NG2
	1.9%	3/158	Spin-Echo Spectrometer, NG5
	8.2%	13/158	Cold Neutron Triple-Axis (SPINS), NG5
	0.6%	1/158	USANS, BT5
	10.1%	16/158	Powder Diffractometer, BT1

	0.6%	1/158 Residual Stress Diffractometer, BT8
	1.3%	2/158 Filter Analyzer Spectrometer (FANS), BT4
	7.0%	11/158 Triple-Axis Spectrometer with polarized beam option, BT2
	1.9%	3/158 Triple-Axis Spectrometer, BT9
100.0% 158/158 Summary		

3. Please rate the proposal process

1) Ease of proposal submission		2.8/3		
2) Referee reports and PAC comments		2.6/3		
3) Proposal process fairness		2.6/3		
4) Scheduling process following approval		2.8/3		
Legends:				
 Poor				
 Adequate				
 Excellent				
 Overall rating based on the scale from 1 to 3				

1) Ease of proposal submission

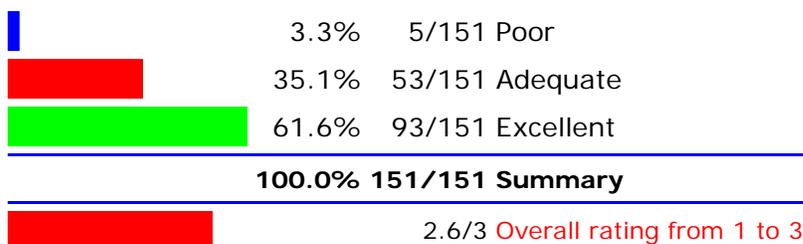
	Percent	Count	Answers
	0.6%	1/156	Poor
	18.6%	29/156	Adequate
	80.8%	126/156	Excellent
100.0% 156/156 Summary			
	2.8/3 Overall rating from 1 to 3		

2) Referee reports and PAC comments

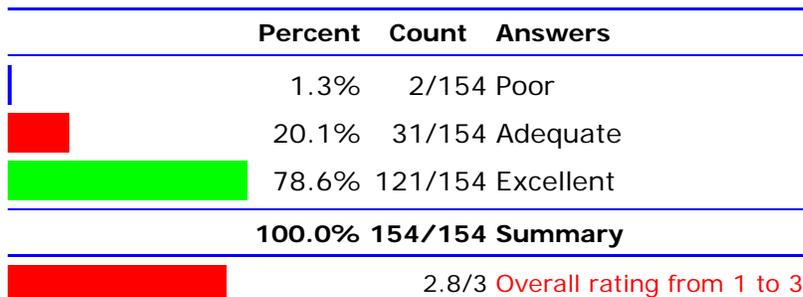
	Percent	Count	Answers
	3.3%	5/151	Poor
	37.7%	57/151	Adequate
	58.9%	89/151	Excellent
100.0% 151/151 Summary			
	2.6/3 Overall rating from 1 to 3		

3) Proposal process fairness

	Percent	Count	Answers
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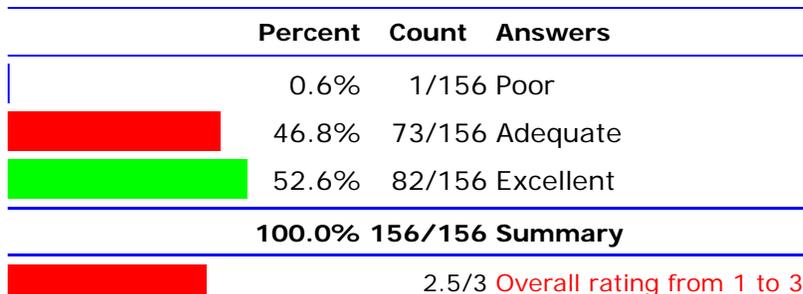
4) Scheduling process following approval



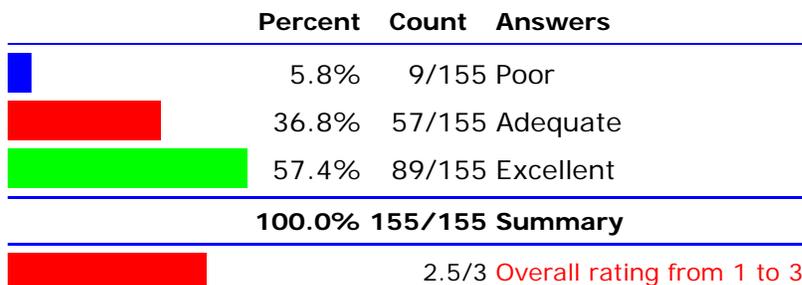
4. Please rate the effectiveness of the health physics training

1) Relevance of computer based training content	2.5/3	
2) Efficiency of computer based training	2.5/3	
3) NCNR Health Physics tour	2.6/3	
4) Discussion/exam review with health physicist	2.6/3	
5) Refresher/Reindoctrination Training	2.5/3	
Legends:		
Poor		
Adequate		
Excellent		
Overall rating based on the scale from 1 to 3		

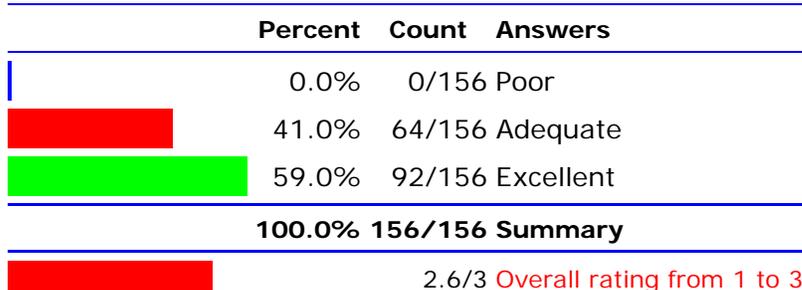
1) Relevance of computer based training content



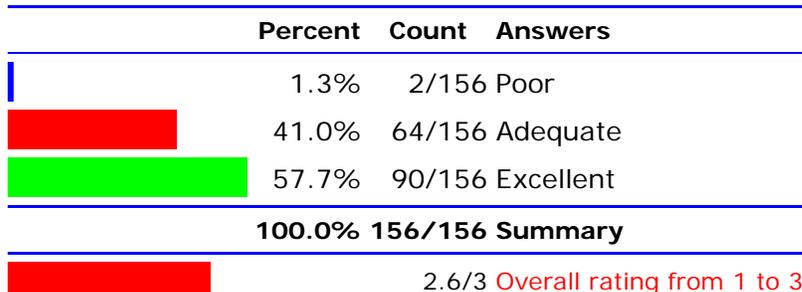
2) Efficiency of computer based training



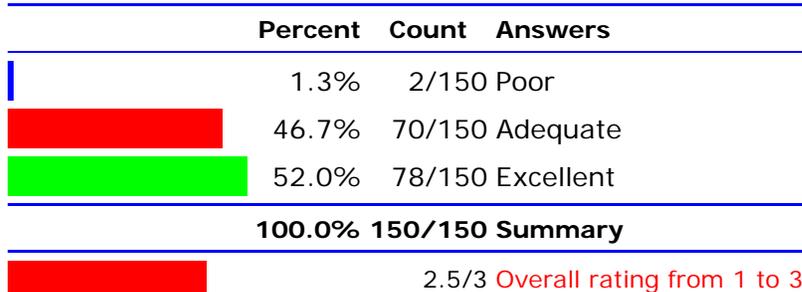
3) NCNR Health Physics tour



4) Discussion/exam review with health physicist



5) Refresher/Reindoctrination Training



5. Please rate the user support facilities

1) User Laboratory facilities		4.0/5			
2) Tools and supplies in support labs		3.8/5			
3) User Offices		3.1/5			
4) NCNR computers for users					

		3.3/5	
5) Network access for user laptops		3.6/5	
6) Break/snack room facilities		2.9/5	
Legends:			
Poor			
Adequate			
Excellent			
Overall rating based on the scale from 1 to 5			

1) User Laboratory facilities

	Percent	Count	Answers
	1.3%	2/157	Poor
	31.8%	50/157	Adequate
	66.9%	105/157	Excellent
100.0% 157/157 Summary			
	4.0/5 Overall rating from 1 to 5		

2) Tools and supplies in support labs

	Percent	Count	Answers
	1.9%	3/156	Poor
	35.9%	56/156	Adequate
	62.2%	97/156	Excellent
100.0% 156/156 Summary			
	3.8/5 Overall rating from 1 to 5		

3) User Offices

	Percent	Count	Answers
	11.6%	18/155	Poor
	46.5%	72/155	Adequate
	41.9%	65/155	Excellent
100.0% 155/155 Summary			
	3.1/5 Overall rating from 1 to 5		

4) NCNR computers for users

	Percent	Count	Answers
	7.8%	12/154	Poor
	46.8%	72/154	Adequate
	45.5%	70/154	Excellent

100.0% 154/154 Summary



5) Network access for user laptops

	Percent	Count	Answers
	5.5%	8/146	Poor
	39.0%	57/146	Adequate
	55.5%	81/146	Excellent

100.0% 146/146 Summary



6) Break/snack room facilities

	Percent	Count	Answers
	9.4%	14/149	Poor
	57.7%	86/149	Adequate
	32.9%	49/149	Excellent

100.0% 149/149 Summary



6. Please rate the following aspects of sample environments

1) Availability of different sample environments		3.9/5	
2) Quality and reliability of the equipment		3.9/5	
3) Support from sample environment personnel		4.6/5	
Legends:			
Poor			
Adequate			
Excellent			
Overall rating based on the scale from 1 to 5			

1) Availability of different sample environments

	Percent	Count	Answers
	1.9%	3/156	Poor
	33.3%	52/156	Adequate
	64.7%	101/156	Excellent

100.0% 156/156 Summary



2) Quality and reliability of the equipment

	Percent	Count	Answers
	5.8%	9/156	Poor
	28.2%	44/156	Adequate
	66.0%	103/156	Excellent
100.0% 156/156 Summary			
	3.9/5 Overall rating from 1 to 5		

3) Support from sample environment personnel

	Percent	Count	Answers
	0.6%	1/154	Poor
	12.3%	19/154	Adequate
	87.0%	134/154	Excellent
100.0% 154/154 Summary			
	4.6/5 Overall rating from 1 to 5		

7. What other sample environments would you research benefit from

- [High speed centrifuge at laboratory facility for sample preparation just prior to neutron runs would be useful, in order to remove particle aggregates that influence low-Q data.](#)
- [High pressure cells for neutron scattering](#)
- [inert atmosphere](#)
- [higher magnetic field](#)
- [I would like to know the exact temperature of sample in the shear cell](#)
- [second shear cell, just in case "the one" is broken.](#)
- [Wide-angle horizontal field magnets](#)
- [better high and ultra high vacuum equipment, atomic force microscopy.](#)
- [Pressure cell for liquids](#)
- [increase the number of detectors \(compared to 32 at present\) could be helpful](#)
- [more and better low temperatrue \(< 1 K\) environments, especially if they are available with and without high fields.](#)
- [More reliable closed cycle refrigerators in 5K range](#)
- [More cryostats with high-field magnets.](#)
- [I have used NG7, NG3, NG1, NG1 Reflectometry and have found all facilities and assistance to be outstanding. I am interested in also accessing USANS BT5 and in learning more about neutron spin-echo capabilities.](#)
- [During my experiments, I need to change illumination. Therefore, I need block light from my sample environments. NIST provides me this sample enviroment.](#)
- [More on high presure for supercritical fluid applications](#)
- [T- Control Shear Cell](#)
- [Variable oxygen partial pressure](#)
- [smaller sample holders \(for precious samples\) better temperature regulation and monitoring \(biological samples\) most of this OK for SANS, but we found that other equipment \(pressure cells, sample holders for disk chopper spectrometer, etc\) were designed for polymeric materials and not appropriate for biological samples.](#)
- [The major need is to be able to use chemicals and solvents which are volitile so that odor will be detected during use in the SANS/USANS work. A good](#)

[hood system which is portable and can be used to remove the air column, near the sample holders, to exhaust it outside would provide major flexibility for doing chemical reactions which generate phases or particles within the beam.](#)

- o [high pressure, low temperature](#)
- o [Parallel Plate Polymer Melt Rheometer](#)
- o [I like to make my own. As such I would appreciate more flexible and widely capable control interfaces between the NS instruments and user supplied ancillary equipment.](#)
- o [This instrument would benefit from more interaction with the sample environments staff.](#)
- o [The support staff is conscientious and hard working, but they are understaffed](#)
- o [Higher field for both vertical and especially horizontal cryomagnets.](#)
- o [Reliable thermometry of sample.](#)
- o [In-situ MBE chamber](#)
- o [different magneic fields, wider temperature ranges](#)
- o [An accurate absolute calibration of the thermometry is essential.](#)
- o [N/A](#)
- o [low temp. cryostat](#)
- o [horizontal magnet with wide access \(not SANS-type\)](#)
- o [N/A](#)
- o [I'd like to see an IR spectrometer and/or Brewster angle microscope available to be used on the NG7 refl. beamline simultaneously with the reflectivity measurements on liquid surfaces](#)
- o [15 T magnet](#)
- o [Low T high pressure equipment](#)
- o [modern 3He system](#)

8. Please rate your primary NCNR instrument

1) Hardware reliability and performance		4.3/5			
2) Data acquisition software		3.9/5			
3) Support from NCNR staff		4.8/5			
Legends:					
 Poor					
 Adequate					
 Excellent					
 Overall rating based on the scale from 1 to 5					

1) Hardware reliability and performance

	Percent	Count	Answers
	0.6%	1/156	Poor
	23.7%	37/156	Adequate
	75.6%	118/156	Excellent
100.0% 156/156 Summary			
	4.3/5 Overall rating from 1 to 5		

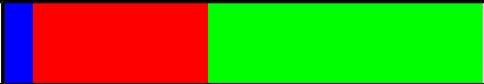
2) Data acquisition software

	Percent	Count	Answers
	5.8%	9/155	Poor
	27.7%	43/155	Adequate
	66.5%	103/155	Excellent
100.0% 155/155 Summary			
	3.9/5 Overall rating from 1 to 5		

3) Support from NCNR staff

	Percent	Count	Answers
	0.6%	1/156	Poor
	5.8%	9/156	Adequate
	93.6%	146/156	Excellent
100.0% 156/156 Summary			
	4.8/5 Overall rating from 1 to 5		

9. Please rate data analysis and visualization software at the NCNR

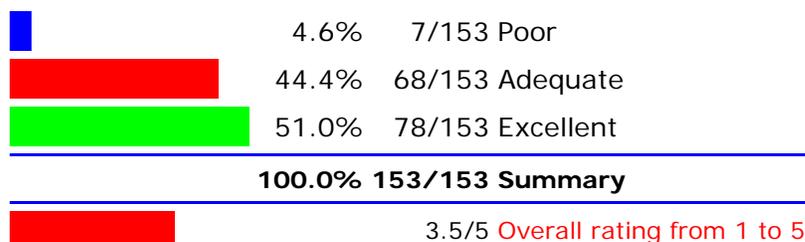
1) Quality of software		3.7/5	
2) Range of capabilities		3.5/5	
3) Assistance from NCNR staff		4.4/5	
Legends:			
 Poor			
 Adequate			
 Excellent			
 Overall rating based on the scale from 1 to 5			

1) Quality of software

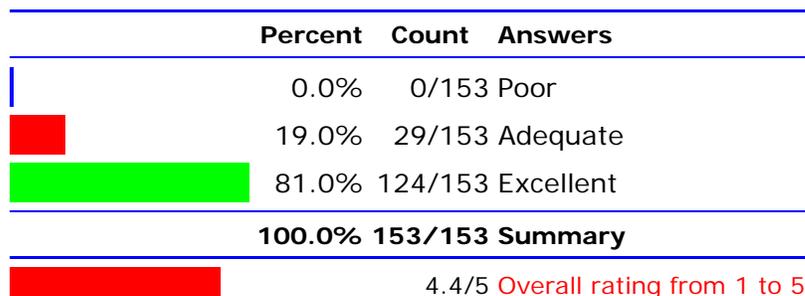
	Percent	Count	Answers
	5.9%	9/153	Poor
	36.6%	56/153	Adequate
	57.5%	88/153	Excellent
100.0% 153/153 Summary			
	3.7/5 Overall rating from 1 to 5		

2) Range of capabilities

	Percent	Count	Answers
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3) Assistance from NCNR staff

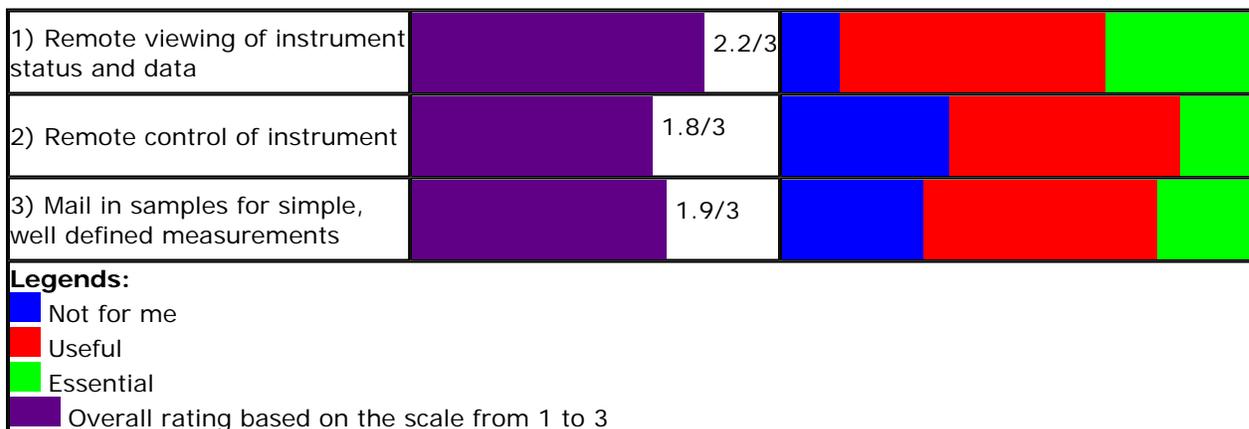


10. What other data analysis tools would your research benefit from

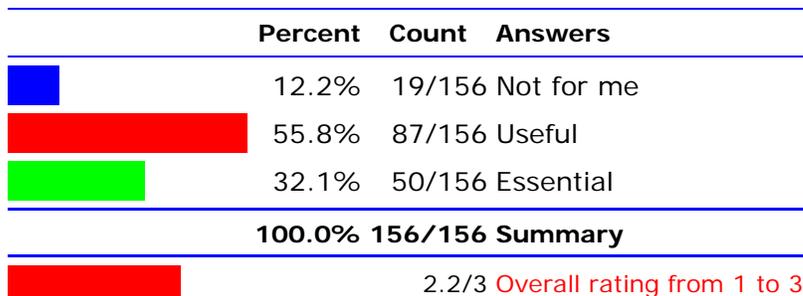
- [A Small angle scattering model for multilamellar vesicles.](#)
- [Additional fitting packages for SANS data\(structure factor forms, additional core shell forms \(cylinders\)\)](#)
- [Desmearing](#)
- [Something like "spyglass transform" for easy and immediate presentation of SANS spectra in 2d and 3d format.](#)
- [Data reduction software and instructions for Spin Echo](#)
- [I know there is an ongoing project to update and extend ICP and DAVE. This should be given full institutional support.](#)
- [Use of stretched exponential functions. More friendly version for user defined fit functions. Fit functions that I'm usually using do not produce stable fit results.](#)
- [More reliable software on NG1](#)
- [I prefer to use my own data analysis tools. In this regard, a unified data file format would be highly welcomed](#)
- [One element of our data analysis that has been frustrating is the difficulty in fitting a polydisperse form factor model to our scattering data. We know from experience that some of our samples form aggregates that are oblate ellipsoidal with solvent entrainment and we know they are polydisperse. It has been difficult for us to adequately fit our sample data to the "polydisperse cylinder" model that NIST makes available because the program is not sufficiently robust. Otherwise, all sample analysis tools have been outstanding.](#)
- [A clear manual for the use of these tools and ease of external access.](#)
- [No.](#)
- [Microcal Origin and Matlab.](#)
- [The data analysis tools at SPEAR \(Los Alamos\) seem to be somewhat more intuitive and easier to use.](#)
- [Data analysis software is just in the process of being upgraded and the new system looks like it is vastly improved](#)
- [Userfriendly software that allows to test data versus established models: I am an unexperienced industrial user, and it is useful to quickly test data against these established models. Not without the support of the very helpful NIST staff scientists this is possible.](#)
- [Software designed for the occasional user rather than the expert user.](#)
- [See answer to 3.3](#)
- [Brian Toby and the rest of the crystallography community participate in an excellent shareware website that has just about any data analysis tool needed.](#)
- [The spectrometer control program is primitive and clumsy. It should be updated and](#)

- [commonalities pursued with other facilities.](#)
- o [I use my own softwares to analyze and visualize data.](#)
[Current software is sufficient and the choice entered in 3.5 does not mean that the NCNR need to do much more.](#)
- o [More raw data comparing utilities](#)
- o [Fast Fourier Transform of spectra](#)
- o [Simulated scattering intensity for a number of simple model cross-sections \(eg Bragg scatytering by powder and single crystals, a single-particle scattering for a given dispersion\)](#)
- o [Data fitting software](#)
- o [Internet collaborative interaction for off site people on the experiment.](#)
- o [Non command-line data reduction, including real-time display of array data and I\(q\) if calibrations and transmissions have been run, possibly with LabVIEW. Automation of data reduction, expecially piecing together low and high q datasets. Direct link of reduced I\(q\) to PC or Mac to Kaledagraph or Excel spreadsheet file and/or plot.](#)
- o [The Igor based software has been invaluable. Steve Klein's help in adding some new macros was greatly appreciated.](#)
- o [We perform SANS under flow resulting in asymmetric 2D patterns. While techniques for analyzing these patterns are being developed it will be key that new analytical tools be easily incorporated into existing NCNR analysis software.](#)
- o [a standard comprehensive data file format](#)

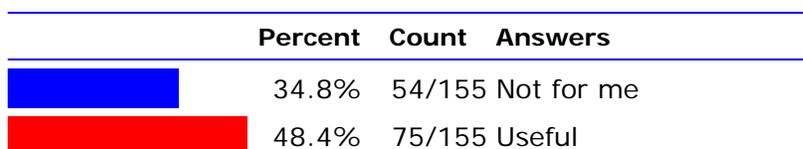
11. **Please rate to what extent these forms of remote access (would) benefit your research program**



1) Remote viewing of instrument status and data



2) Remote control of instrument



	16.8%	26/155	Essential
<hr/>			
100.0% 155/155 Summary			

 1.8/3 Overall rating from 1 to 3

3) Mail in samples for simple, well defined measurements

	Percent	Count	Answers
	29.5%	46/156	Not for me
	49.4%	77/156	Useful
	21.2%	33/156	Essential
<hr/>			
100.0% 156/156 Summary			

 1.9/3 Overall rating from 1 to 3

12. Please list any neutron instruments not currently at the NCNR that would benefit your research program or the community in general.

- [Higher neutron flux would be useful](#)
- [magnetic neutron spin echo](#)
- [powder diffraction with area detector, for visualizing anisotropy of small molecule powder samples--I think that your current powder instruments don't have the right detector capability for this.](#)
- [BT7](#)
- [a modern thermal triple axis instrument](#)
- [A better capability to go to high q with a strong magnetic field and a furnace/cryostat . Polarized beams.](#)
- [No.](#)
- [As quite a portion of proposals are rejected each year, please consider to increase the numbers of SANS and NR.](#)
- [Zero field spin echo triple axis](#)
- [Single crystal diffractometer](#)
- [A spin echo spectrometer that actually worked and had software that wasn't a disaster.](#)
- [Higher resolution on the BT-1 diffractometer would be greatly beneficial.](#)
- [BT7](#)
- [I have been really impressed with the new neutron control software at ORNL - perhaps NIST should consider a similar interface.](#)
- [N/A](#)
- [some supplemental x-ray equipment for simple characterization while doing neutron experiments. For example x-ray reflectivity for film thickness determination while running neutron reflectivity. This capability exists at NCNR but is not easily available to visiting users \(though the management such a facility might be difficulty\).](#)
- [spin-polarized SANS](#)
- [An instrument covers the Q range from 0.01 to 2.0 A-1. It is an instrument between the currently existing SANS and wide-angle diffractometer. The instrument shall be very capable of Machine with such a range tackles the nano-scale, which will benefit the entire nano-community.](#)
- [dedicated polarized beam spectrometer](#)
- [four circle single crystal diffractometer](#)
- [polarized beam diffractometer](#)

13. Are there any other comments or suggestions about the NCNR that you would like to add?

- [This is an excellent facility which I hope will continue to develop and grow.](#)
- [the NIST-NCNR is probably the greatest American scientific asset and it deserves to be funded at the requested level or more.](#)
[X.S. Ling, Associate Professor of Physics](#)
- [This is a great facility made all the more wonderful by the personnel I work with and have interacted with \(Hammouda, Kline, Glinka\).](#)
- [During the proposal submission process it should be made horribly, insultingly, condescendingly clear that only 3 figures are allowed to be included with the experimental report.. maybe its 4 actually. Whatever the hell the number is I spent a week writing a report that had to many figures, then had to re-write it at the last minute cause I had too many figures.. granted, I'm an idiot, but the process should be made as idiot proof as possible.. in short, it should be easier for short-sighted people like me to have access to a nuclear reactor.](#)
- [It's a wonderful place to do research--supportive, friendly staff and excellent facilities and training.](#)
- [Remote viewing apparatus to see samples during runs without interruptions.](#)
- [It is an excellent facility which has been an integral part of the research group that I am in over the years. Our studies at NCNR have increased our understanding of complex fluids and in assembling new structures.](#)
- [I am now retired and am no longer using the neutron scattering facilities. However, I was one of those responsible for first establishing SANS facilities in the US, first at ORNL and later at NIST. I was a member of the Seitz-Eastman Committee which urged the creation and development of these facilities. I recognized the need for these which have been very valuable for my previous work and appreciate the need for their continued development and support in order that the US remain at the forefront of research. My experience at NIST was that the facility is very well run and serves a very important function. I strongly urge its continued support.](#)
- [More spare parts and second quartz shear cell, just in case something is broken.](#)
- [I would like to indicate my satisfaction with the staff. They have been extremely helpful.](#)
- [My experience at the NCNR is the best I have had in comparison other user facilities through out the country \(which in general has been from good-very good\). The scientific output from the neutron reactor as I have seen it is exceptionally good.](#)
- [NCNR became real external user-friendly facility. However, I guess, the user community will broaden even more if NCNR will provide travel support for users \(the way it works, for example, at ILL or ESRF in Grenoble\). NCNR supports \(with a limited amount\) first time users only. When I'm coming with 2-3 students for ~7-10 days to Gaithersburg, it requires large travel money. The system like the one existing in Grenoble will remove this concern and will broaden user community that at the end will result in more effective use of NCNR.](#)
- [Great facility and great people!!](#)
- [NCNR programs had significant role in the development of my research. Summer schools were excellent chance to learn from well known scientists, staff are very available and helpful, and there are good tools and softwares for data analysis.](#)
[NCNR is a valuable source for researchers\(graduate students and professors\) all over nation.](#)
- [NCNR is a premier neutron scattering facility in terms of the operation policy, resource development and user assistance, #1 in the US and arguably that internationally. It deserves the strongest support possible.](#)
- [Sorry, I haven't used the instruments yet and I can not rate them but I just wanted to say which setups can be useful for my reserach in future if it's any use for you.](#)
[Sincerely,](#)
[-d](#)
- [AN excellent facility, world-class personnel, and unique instruments.](#)
- [More available beam time, for both proposal based and collaborative work.](#)
- [By and large, my experiences at NIST have been superb. The staff -- health physics, scientific, beamline -- are knowledgable, friendly, and a joy to work with. I am pleased to do anything in my power to assist in keeping the facility vibrant and active.](#)
- [The NCNR is one of the finest user facilities in the world. The instruments provide capabilities that are unique and critical to the field of materials research, biological sciences, chemistry, and solid state physics. The facility is maintained such that the instruments are easy to use, always operating reliably, and running around the clock. The funding is put to exceptionally good use. Plus, on a scale of 1-10, the staff is a 99! They are always available to help- before, during and after experiments, and they provide excellent training, teaching and customer service functions. This facility is a precious and indispensible resource for the advancement of science and should, unquestionably, be fully staffed and supported for many years to come.](#)
- [No](#)

- [Is it possible to build up a cafeteria in NCNR building?](#)
- [This facility is essential for neutron research in the eastern US. The staff scientists have been wonderful.](#)
- [There seems to be no correlation between the quality of the proposals, and the significance of the results, as indicated by the literature, and the acceptance or rejection. It seems that any new idea faces a very strong resistance while old; pretty much variations on old experiments are welcomed. It defeats the purpose of a dynamic scientific place.](#)
- [This is a wonderful program.](#)
- [I use several of the national neutron facilities and, although some of the other facilities in principle have more extensive capabilities, NCNR is by far my first choice because of the excellent support that the staff provide and the reliability of the instrumentation.](#)
- [I have been completely pleased with the interactions with the facilities and the people who work there. Keep up the good work!](#)
- [I have found staff to be quite knowledgeable and helpful.](#)

[Proposal process and allocation of instrument time seems somewhat politicized; I wonder whether we have received time in the past because of personal connections.](#)

[I wish quasi-elastic and inelastic experiments could be made more sensitive and more useable for biological samples. These applications are unique to neutrons \(as opposed to X-rays\), and it would be great to exploit them.](#)

- [This was our first experience at NCNR. Neutron scattering brings an important added dimension to experimental efforts in structural biology of macromolecular machines, and we wanted to explore its potential. I can say without qualification that the scientists and staff at NCNR with whom we interacted were helpful and patient with us \(my post doc and graduate student\) in preparing samples, collecting data, and assisting us with the analysis and interpretation. The operation is an excellent model for how a national user facility should operate. Keep up the good work.](#)
- [The program bringing graduate students to NIST to conduct experiments based on their submission of short proposals is a superb concept and of enormous value. There is no way we could have ever gotten into the use of Neutron scattering or learned so much about its value without this program. Dr. Glinka and his staff are to be congratulated on contributing to the success of many research programs and for "spreading the neutron gospel" through their excellent service to the scientific community through this program. If ever a program deserved expansion, this is it.](#)
- [As I hope is apparent by my responses above, I have had very good experiences at NIST, both in terms of using instruments and interacting with staff scientists. I have used both the SANS and USANS instruments.](#)
- [Can you clone Mike? I think US neutron scattering needs about five of him. And good luck to Pat.](#)
- [The NCNR is an excellent resource for science in the US. I realize that there is a large pool of users for the available instruments, but the time seems fairly distributed. However, it would be nice if all of the barriers for doing science there could be examined.](#)
- [The NCNR is the only place on the east coast with a constant wavelength neutron source and is essential to my research on complex metal oxides and the crystallography community in general. User time is apportioned in a reasonable process, given the recent cuts in funding to NIST and the NCNR. Furthermore, the outreach program through the University of Maryland and the summer school on neutron scattering are invaluable forums for introducing new users to the instrumentation and encouraging them to take advantage of the unique properties of neutron radiation. It would severely hurt the advancement of both applied and basic sciences \(already affected by the closure of the HFBR at Brookhaven\) should this facility not be supported in full.](#)
- [The NCNR has the best suite of instruments and sample environments among US neutron facilities. And it is also the most open and fair to the user community. I hope that both can be continued to the future.](#)
- [Decreased funding to the NCNR will significantly impact U.S. materials science research capabilities in a negative way, and at a time when efforts abroad are actually being built up. The U.S. needs to maintain and enhance our existing cutting-edge materials research capabilities, not cripple them with funding cuts. The characterization and fundamental understanding of materials with exploitable properties remains the "bottom of the food chain" for the development of](#)

- [advanced technologies and for realizing the dreams of future applications.](#)
- [The NCNR has the best user program of all the neutron sources that I have done experiemnts at. The quality an reliability of the instruments is amazing, as is the publication record coming out of the NIST community.](#)
 - [NCNR staff are excellent. The secretary, safety trainers, staff scientists \(especially Dr. Sushil Satija and Dr. Min Lin\) are knowledgable and always ready to help.](#)
 - [Do something about those user cubicles!](#)
 - [Best neutron scattering site in the US and world class facility overall.](#)
 - [I think that the remote experimentation capability is a very important improvement that could be used to assess feasibility of some kinds of experiments. I am setting up a remote experimentation user facility in my laboratory since I am based on the west coast. This facility is equipped with computers, video projectors, and interaction areas especially designed to facilitate remote experimentation.](#)
 - [I hope that the level of support and stability of personel will continue. It makes coming to the NCNR a pleasure.](#)
 - [A larger sample environment support group](#)
 - [A modern triple axis instrument control system](#)
 - [The facility has grown into the world leader by providing facilities in which each instrument operates with minimal user technical problems. All problems are taken care of by the staff including setting up the experiment and providing training for the users. In my experience with two other facilities, no facility has allowed such ease in performing experiments and taking the data home for analysis. This is because the NCNR has considered that by minimizing forseable problems for the user they can complete their experiments sooner allowing more users per cycle.](#)

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